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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,935	10/03/2003	Matthew L. Cooper	FXPL-01085US0	1199
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FLIESLER MEYER LLP 650 CALIFORNIA STREET 14TH FLOOR SAN FRANCISCO, CA 94108				
EXAMINER				
AKHAVANNIK, HADI				
ART UNIT		PAPER NUMBER		
2624				
MAIL DATE		DELIVERY MODE		
12/02/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/678,935

**Applicant(s)**

COOPER ET AL.

**Examiner**

HADI AKHAVANNIK

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-11 and 21-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11,21,22 and 26-32 is/are rejected.
- 7) ☒ Claim(s) 23-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. The examiner acknowledges the cancellation of claims 16-17 and the addition of claims 27-32.
2. Applicant's arguments with respect to claims 1, 21, and 22-26 have been considered but are moot in view of the new grounds of rejection. Please see new rejection below.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 21-22 and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toklu et al. (6549643, referred to as "Tok" herein) in view of Martino et al. (6473095, referred to as "Mar" herein) and in further view of Foote et al. (2003/0161396, referred to as "Foo" herein)

Regarding claim 1, Tok disclose a method for discriminatively selecting keyframes representative of segments of a source digital media, comprising the steps of: obtaining said source digital media for which keyframes are to be selected, wherein said digital information contains a plurality of segments (see figure 1, which has a video segmenter and column 5 lines 35-60);

determining the in-class similarity for said candidate key frames wherein the in-class similarity values are determined by comparing the values for the candidate key frames to other values found solely within the same segment that the candidate key frame comes from (see figure 4 and column 13 lines 3-60 which discloses comparing the keyframes to similar key frames within the same segment)

Tok does not explicitly disclose checking the out-of-class similarity

Mar discloses determining the out-of-class similarity values for each candidate key frames, wherein the out-of-class similarity values are determined by comparing the values for the candidate key frames to other values found solely outside of the segment the candidate key frames come from and discriminatively selecting a key frame for each segment based on both the in class and out of class similarity wherein each key frame is both representative of the segment the selected key frame originates from and distinguishable from other selected key frame originates from and distinguishable from other selected key frames which are representative of the remaining plurality of segments (see figure 2 and column 3 lines 5-65 which discloses comparing each key frame to the values of each bin. The bins represent key frames outside the class. This way the bin placement of the candidate key frame is distinguished from each of the other bins. For example, when no bin matches, the system will create a new bin for the candidate key frame).

It would have been obvious to one of ordinary skill in the art to include in Tok the bin comparing means as taught by Mar. The reason for the combination is because it

makes for a more robust system that is able to check candidate key frame against other potential key frames located outside its current bin.

Neither Tok nor Mar explicitly disclose using feature vectors.

Foo disclose pre-processing said source digital media to obtain a plurality of feature vectors, said features being representative of the candidate key frame (see figure 1 and paragraph 31-33);

It would have been obvious at the time of the invention to one of ordinary skill in the art to include in Tok and Mar the feature vector extraction means as taught by Foote. The reason for the combination is because it makes for a more robust system that is able to use feature vectors to compare the characteristics of the frames. Further, feature vectors are a well known method of storing characteristics of images.

Regarding claim 21, please see the rejection of claim 1 as it discloses all aspects of claim 21.

Regarding claim 22, the rejection of claim 1 describes how a key frame is placed on bins depending how close its characteristics match, the examiner is interpreting this as a goodness function.

Regarding claim 26, the rejection of claim 1, specifically Tok discloses selecting multiple key frames.

Regarding claim 27, see paragraphs 35-39 of Foote.

Regarding claims 28-30, see the rejection of claim 1 and paragraphs 47-53 which discloses feature vectors for multiple sizes and lengths of Foote.

Regarding claim 31, see paragraph 40 of Foote.

Regarding claim 32, see paragraphs 25-27 which discloses semantic content.

4. Claims 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toklu et al. (6549643, referred to as "Tok" herein) in view of Martino et al. (6473095, referred to as "Mar" herein) in view of Foote et al. (2003/0161396, referred to as "Foo" herein) and in further view of Hansen et al. (2002/0038456, referred to as "Hansen" herein)

Regarding claim 3, Tok, Mar and Foo discloses all aspects of claim 3, except he does not explicitly disclose using a plurality of digital media.

Hansen discloses using a plurality of digital media (see abstract, paragraphs 26-27 and 85-86 as they disclose concatenating multiple types of media such as still media, video clips and other visual and audio clips).

It would have been obvious at the time of the invention to one of ordinary skill in the art to include in Tok, Mar, and Foote a multiple type of media concatenating method as taught by Hansen. The reason for the combination is because it makes for a more robust system that is able to function on multiple types of system that are presented to it in one stream.

Regarding claim 4, the rejection of claim 3 discloses concatenating the plurality of digital media.

Regarding claim 5, paragraph 26 of Hansen and the rejection of claim 1 discloses using digital video.

Regarding claims 6-7, paragraph 26 of Hansen discloses both audio and image data.

Regarding claim 8, the examiner takes official notice that it would have been exceedingly obvious to one of ordinary skill in the art to include in the combination of Mar, Tok, Foote, and Hansen digital text. The reason for this is because Hansen already discloses "other visual and audio data" (paragraph 26 of Hansen) and digital text is a common type of other visual data.

Regarding claim 9, Hansen discloses concatenating multiple digital media such as image and video (see the rejection of claim 3).

Regarding claim 10, Hansen discloses determining if multiple digital media are present in order to concatenate the digital media into a single digital media (see the rejection of claim 3).

Regarding claim 11, the rejection of claim 3 discloses that multiple micro channels, each having their own digital media, are sent to the distribution system to create one stream of digital data. And, in order to concatenate the digital media the system must realize what types of media are being sent from each micro channel. See paragraphs 84-87 of Hansen for more details.

#### ***Allowable Subject Matter***

5. Claims 23-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HADI AKHAVANNIK whose telephone number is (571)272-8622. The examiner can normally be reached on 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/  
Supervisory Patent Examiner, Art Unit 2624

HA  
11/25/08